

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONFIGURATION OF THE INTERSECTION OF VERMONT ROUTE 120 AND ROUTE 236 LOCATED IN THE TOWN OF FRANKLIN. THE VT 236 LEG WILL BE REALIGNED TO CREATE A 90 DEGREE INTERSECTION. THE PORTION OF VT 236 THAT WILL BE REALIGNED WILL BE CONSTRUCTED USING A FULL DEPTH OF SUBBASE. THE TOTAL ROADWAY WORK IS APPROXIMATELY 150 FEET. NATURAL RESOURCES NEAR THE PROJECT AREA HAVE BEEN CLEARLY IDENTIFIED AND SHOWN ON THE EXISTING CONDITIONS SITE PLAN SHEET.

IT IS ANTICIPATED THAT THIS PROJECT WILL BE COMPLETED IN ONE CONSTRUCTION SEASON WITH NO WORK BEING DONE OUTSIDE THE PLANTING SEASON.

TOTAL DISTURBED AREA (EXCLUDING WASTE AND BORROW AREAS):
14,100 SF (0.33 ACRES)

THE TOTAL DISTURBED AREA IS AN ESTIMATE. ALL ON-SITE AND OFF-SITE WASTE AND BORROW AREAS AND HAUL ROADS NEED PRIOR WRITTEN CLEARANCE BY VTRANS ENVIRONMENTAL SECTION PRIOR TO THE BEGINNING OF CONSTRUCTION.

SITE INVENTORY AND ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS:

THE AREA SURROUNDING THE PROJECT SITE DRAINS FROM THE NORTHEAST TO THE SOUTHWEST. STORMWATER SHEET FLOWS OVER THE FARMLAND AND IS COLLECTED IN EITHER ROADSIDE DITCHES OR IS INTERCEPTED BY A WATERCOURSE LOCATED TO THE WEST. THE WATERCOURSE DRAINS FROM THE SOUTH TO THE NORTH. DRAINAGE FROM THE ROADWAY SURFACE IS COLLECTED IN ROADSIDE DITCHES AND CONVEYED TO AN EXISTING WATERCOURSE LOCATED TO THE WEST. THE SURROUNDING AREA CONSISTS OF FARMLAND AND CROP GROWING AREAS.

DRAINAGE, WATERWAYS, BODIES OF WATER:

THERE IS AN EXISTING WATERCOURSE THAT EXISTS SOUTHWEST OF A MAN-MADE POND LOCATED BETWEEN VT 120 AND VT 236. THIS WATERCOURSE FLOWS FROM THE SOUTH TO THE NORTH. IT PASSES UNDER VT 236 THROUGH AN 18' CULVERT AND UNDER VT 120 THROUGH AN EXISTING CULVERT. A CLASS II WETLAND EXISTS ADJACENT TO THIS WATERCOURSE AND IS SHOWN ON THE EXISTING CONDITIONS PLAN. A MAN-MADE POND LOCATED EAST OF THE WATERCOURSE IS THE ONLY BODY OF WATER LOCATED NEAR THE PROJECT AREA.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

THE TOPOGRAPHY OF THE AREA NEAR THE PROJECT SITE IS SLOPING DOWN TO THE SOUTHWEST. THERE IS A HIGH POINT ON VT 120 LOCATED AT THE EXISTING INTERSECTION. NORTH OF THE HIGH POINT, THE ROADWAY SLOPES DOWN TO THE NORTH. THE LAND BECOMES STEEPER NEAR THE MAN-MADE POND. BOTH VT 120 AND VT 236 ARE RURAL MAJOR COLLECTORS WITH PAVED SURFACES. THERE IS AN EXISTING HOME LOCATED TO THE WEST OF THE INTERSECTION AND AN EXISTING BARN LOCATED TO THE EAST OF THE INTERSECTION. OVERHEAD UTILITY LINES EXIST ADJACENT TO BOTH VT 120 AND VT 236. OVERHEAD UTILITIES WILL NOT BE IMPACTED AS PART OF THIS PROJECT.

VEGETATION:

THE VEGETATION LOCATED BETWEEN VT 236 AND VT 120 IN THE AREA OF THE PROJECT CONSISTS OF MAINLY FARMLAND. VEGETATION LOCATED EAST OF VT 236 IS PRIMARILY CORNFIELD. VEGETATION LOCATED WEST OF VT 120 IS ALSO PREDOMINANTLY CORNFIELD.

DURING CONSTRUCTION, DISTURBED AREAS WILL BE SEEDED AND MULCHED. FOLLOWING CONSTRUCTION, ANY DISTURBED AREAS ADJACENT TO THE ROADWAY WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

SOILS:

THE SOILS IN THE AREA CONSIST OF A WESTBURY STONY FINE SANDY LOAM. WESTBURY HAS A 'K' VALUE OF 0.28. THIS TYPE OF SOIL IS CONSIDERED TO HAVE MODERATE ERODABILITY POTENTIAL.

SENSITIVE RESOURCE AREAS:

HISTORICAL AND ARCHAEOLOGICAL AREAS ARE LOCATED NEAR THE PROJECT AREA. A CLASS II WETLAND AND BUFFER ARE ALSO LOCATED NEAR THE PROJECT AREA. ALL OF THE SENSITIVE AREAS ARE LOCATED IN CLOSE PROXIMITY TO THE PROJECT. EACH OF THESE AREAS IS CLEARLY MARKED ON THE PLANS. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO MINIMIZE THE EFFECT OF CONSTRUCTION ACTIVITIES ON ANY SENSITIVE RESOURCE AREAS.

THERE HAVE BEEN NO THREATENED AND ENDANGERED SPECIES IDENTIFIED WITHIN THE PROJECT LIMITS.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:

THE DISTURBANCE OF SOIL NEAR NATURAL OR MAN-MADE WATER FEATURES WILL BE NECESSARY TO RECONSTRUCT THE INTERSECTION. THE DISTURBED AREAS WILL BE STABILIZED WITH STANDARD SEED AND MULCH PRACTICES DURING CONSTRUCTION AND ONCE CONSTRUCTION IS COMPLETE.

TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL

TEMPORARY EROSION PREVENTION MEASURES TO BE UTILIZED INCLUDE:

PROJECT DEMARCATION FENCING (ITEM 620.70 - SNOW FENCE (MOD. - PDF)), DENOTED -PDF-PDF- ON THE PLANS, SHALL DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION. PDF MAY BE LOCATED IN CLOSE PROXIMITY TO THE PROPOSED SLOPE LINE IN ORDER TO KEEP CONSTRUCTION ACTIVITY OUT OF SENSITIVE AREAS.

MULCHING WILL BE UTILIZED ON A REGULAR BASIS. ANY SOIL TO BE EXPOSED FOR SEVERAL DAYS PRIOR TO FINAL GRADING SHALL BE MULCHED. SOIL SHALL BE STABILIZED WITHIN 48 HOURS PRIOR TO FORECASTED RAIN.

SEEDING AND MULCHING SHALL BE UTILIZED TO STABILIZE SOIL. SOIL SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE AND/OR DURING INTERMITTENT PHASES OF CONSTRUCTION.

SILT FENCE WILL BE INSTALLED AT THE TOE OF FILL SLOPES TO PREVENT SEDIMENT TRANSPORT TO DOWN GRADIENT AREAS. EACH LINE OF SILT FENCE WILL BE PLACED ALONG THE CONTOUR WITH THE LOWER EDGE BURIED 6" TO PREVENT UNDERFLOW AND ENDS TURNED SLIGHTLY UP GRADE TO CREATE A PONDING EFFECT. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UPSLOPE EARTHWORK. SILT FENCE SHALL BE PLACED AS SHOWN ON THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN.

INLETS SHALL BE SURROUNDED BY STONE CHECK DAMS OR SILT FENCE TO LIMIT THE AMOUNT OF SEDIMENT THAT ENTERS THE INLET. INLET PROTECTION SHALL BE PLACED AS SHOWN ON THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN AND PER THE DETAIL SHOWN IN THE PLANS. THIS MEASURE SHALL BE INSTALLED ONCE THE GRADE ADJACENT TO THE INLET IS WITHIN SIX INCHES OF FINAL GRADE. INLETS SHALL BE CLEANED WHEN THE SUMP BECOMES FILLED WITH SEDIMENT AND AT THE COMPLETION OF CONSTRUCTION.

STONE CHECK DAMS WILL BE INSTALLED IN DITCH LINES TO FORCE STORMWATER TO POND AND LIMIT SEDIMENT TRANSPORT. STONE CHECK DAMS SHALL BE PLACED AS SHOWN ON THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN AND PER THE DETAIL SHOWN IN THE PLANS.

AT LOCATIONS WHERE CONSTRUCTION VEHICLES WILL BE ENTERING OR LEAVING THE CONSTRUCTION SITE/STAGING AREAS, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED TO LIMIT THE AMOUNT OF SEDIMENT THAT IS TRANSPORTED OFF OF THE SITE BY CONSTRUCTION VEHICLES. STONE WILL BE USED TO REMOVE SEDIMENT FROM THE TIRES OF CONSTRUCTION VEHICLES. IF SEDIMENT IS STILL BEING TRACKED ONTO PUBLIC ROADS, THE LENGTH OF THE PAD SHALL BE EXTENDED OR VEHICLES SHALL BE RINSED WITH A HOSE PRIOR TO LEAVING THE SITE.

TEMPORARY EROSION CONTROL MEASURES SHALL BE REGULARLY INSPECTED AND MAINTAINED FOR LIMITING SEDIMENT BUILD-UP. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE CONTROL MEASURE. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE SUCH THAT IT WILL NOT BE SUBJECT TO EROSION.

THE STAGING AREA LOCATION IS SHOWN ON THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN. ANY CHANGES TO THIS LOCATION MUST BE APPROVED BY THE RESIDENT ENGINEER AND VTRANS ENVIRONMENTAL SECTION.

PERMANENT EROSION CONTROL MEASURES

PERMANENT EROSION CONTROL MEASURES TO BE UTILIZED INCLUDE:

ALL DISTURBED SOIL SHALL BE STABILIZED WITH SEED AND MULCH.

GENERAL EROSION AND SEDIMENT CONTROL GUIDELINES

THE CONSTRUCTION SEASON SHALL BE FROM MAY 1 TO OCTOBER 15. IF ANY EARTHWORK IS TO BE PERFORMED OUTSIDE THE CONSTRUCTION SEASON, A WINTER EROSION AND SEDIMENT CONTROL PLAN DESCRIBING ALTERNATIVE STABILIZATION METHODS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO AUGUST 15 FOR APPROVAL.

THE CONTRACTOR SHALL STOCKPILE MATERIAL WITHIN THE STAGING AREA ONLY. STOCKPILES SHALL BE STABILIZED WITHIN 48 HOURS PRIOR TO FORECASTED RAIN.

FUELING AND MAINTENANCE OF CONSTRUCTION VEHICLES SHALL BE LIMITED TO THE STAGING AREAS AND SHALL BE DONE BY QUALIFIED PERSONNEL.

THE EROSION CONTROL PLANS ARE MEANT TO BE A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORMWATER CONTROLS, AND OTHER POLLUTION PREVENTION CONTROLS.

COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS EROSION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. THE CONTRACTOR SHALL USE ADDITIONAL EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION, FIELD CONDITIONS, AND AS DIRECTED BY THE ENGINEER OR ONSITE COORDINATOR. SEE SECTION 105.23 OR THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001.

INSTALL EROSION AND SEDIMENT CONTROLS MEASURES AS SHOWN IN THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN OR AS DIRECTED BY THE ENGINEER OR ONSITE COORDINATOR. DO NOT MODIFY THE TYPE, SIZE, OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT APPROVAL OF THE ENGINEER OR ONSITE COORDINATOR. ANY CHANGES SHALL BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT, AND REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER. INSPECT ALL CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT THAT PRODUCES RUNOFF FROM THE PROJECT SITE. REPAIR MEASURES PROMPTLY ONCE DAMAGE IS DISCOVERED.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY VEGETATION SHALL BE ESTABLISHED IF THE AREA IS TO BE WITHOUT CONSTRUCTION ACTIVITY FOR A PERIOD OF 14 DAYS. PERIMETER CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. INSTALL OTHER TEMPORARY CONTROLS IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

MAINTAINING VEGETATED BUFFERS ALONG THE STREAM BANKS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE EMPLOYED WHENEVER POSSIBLE.

CONTROL ONLY SEDIMENT LADEN STORMWATER RUNOFF GENERATED BY THE PROJECT SITE. COLLECT AND ROUTE CLEAN STORMWATER AROUND THE PROJECT SITE WHENEVER POSSIBLE USING DIVERSION BERMS, CHANNELS, CULVERTS, OR TEMPORARY PIPES.

DO NOT ALLOW CONSTRUCTION EQUIPMENT TO OPERATE OUTSIDE OF PERIMETER CONTROL MEASURES.

DATUM

VERTICAL: NAVD 88
HORIZONTAL: NAD83

PROJECT NAME: FRANKLIN
PROJECT NUMBER: HES 0313(4)

FILE NAME: ECO1.DGN
PROJECT LEADER: GAMBLE
DESIGNED BY: BRC
EROSION CONTROL NARRATIVE

PLOT DATE: 11-OCT-2006
DRAWN BY: MJF
CHECKED BY: DMB
SHEET 14 OF 26